

What is claimed is:

1. A spreader roll for processing machines of the type used in the paper, textile and plastics industry comprising:

a bowable shaft;

a cylindrical outer surface comprising a plurality of cylinder elements axially aligned along said shaft, each of said elements having an outer surface and at least one end portion having a nonlinear profile.

2. The spreader roll of claim 1 wherein said nonlinear profile of adjacent ones of said cylinder elements are arranged in mating relationship.

3. The spreader roll of claim 2 wherein said nonlinear profile defines a generally sine wave configuration.

4. The spreader roll of claim 3 wherein said sine wave configuration includes flattened areas.

5. The spreader roll of claim 3, wherein said sine wave configuration includes tessellated, partially mosaic flattened areas.

6. In a spreader roll including a bowable shaft, a cylindrical outer surface mounted for rotation about said shaft, said cylindrical outer surface being comprised of a plurality of interconnected cylinder elements, each of said cylinder elements including an outer surface and oppositely disposed end portions, the improvement wherein at least one of said oppositely disposed end portions has a nonlinear profile.

7. The spreader roll of claim 6 wherein said nonlinear profile defines a sine wave configuration.

8. The spreader roll of claim 7 wherein said sine wave configuration includes flattened areas.

9. The spreader roll of claim 8 wherein said sine wave configuration includes tessellated, partially mosaic flattened areas.

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10 A spreader roll for processing machines of the  
 5 type used in the paper, textile and plastics industry  
 comprising:

a bowable shaft;

a plurality of roll segments, said roll segments  
 being rotatably supported on said shaft; and

10 each said segment having at least one non-linear  
 end edge profile.

11. The spreader roll of claim 10 wherein said non-  
 linear end edge profiles are arranged to intermesh with  
 adjacent roll segments.

12. The spreader roll of claim 10 wherein said non-  
 linear end edge profile is substantially sinusoidal.

13. The spreader roll of claim 12 wherein the  
 substantially sinusoidal edge profile includes at least  
 one flattened area.

14. The spreader roll of claim 12 wherein the  
 substantially sinusoidal edge profile includes  
 tessellated, partially mosaic flattened areas.

15. A spreader roll for processing machines of the  
 type used in the paper, textile and plastics industry  
 comprising:

a bowable shaft,

5 a cylindrical outer surface comprising a  
 plurality of cylindrical roll segments axially aligned  
 and rotatably supported on said shaft; and  
 each said segment having a sinusoidal end edge profile.

16. The spreader roll of claim 15 wherein said non-  
 linear end edge profiles are arranged to interlock with  
 adjacent roll segments.

17. The spreader roll of claim 15 wherein each said  
 sinusoidal end edge profile includes at least one  
 flattened area.

5 18. The spreader roll of claim 15 wherein each said  
 sinusoidal end edge profile includes tessellated,

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partially mosaic flattened areas.

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